

## BEHAVIOURAL ANALYSES OF INFORMATION TECHNOLOGY ACCEPTANCE (Case Study: SME's Trade Industrial Sector in Jabodetabek)

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### ABSTRACT

*The objective of this research are to examine some factors that influence intention of utilization and usage of information technology to performance company, with based on the model UTAUT (Unified Theory of Acceptance and Use of Technology) proposed by Venkatesh et al., (2003). Based on research, data that obtained from perception owner or execution bussines from trade industrial sector in Jakarta, Bogor, Depok, Tangerang, and Bekasi (Jabodetabek). From one hundred questionnaires have sent companies, only 70 questionnaires can be used. The data were analyzed by using correlate by SPSS 13 of software. Study results show that effort expectancy more significant positive influence to usage intention of information technology, better than performance expectancy and social influence. Whereas facilitating conditions and usage intention of information technology give significant positive influence to performance company, and together moderating effect factors are gender and age more dominant influence than experience in usage of information technology.*

*Key words: SMEs, UTAUT, information technology, performance company*

### 1. INTRODUCTION

Small & Medium Enterprises (SMEs) is one of very calculated by economic sector in Indonesian, because giving contribution to economics Indonesian. The visible can mentioned from role in economics growth of national, gross domestic bruto (GDP), added value national, and also the labour absorbtion.

Meanwhile, in global economics in this time, SMEs claimed to make a change to utilize improve competitiveness. One of important factor to determine competitiveness of SMEs is information technology (IT). Use of IT can improve transformation of business to speed, accuracy, and efficiency of transfer information in gross.

SMEs told to have global competitiveness, if able execute business operation by reliabel, balanced, and high standard. Base on research, in use of information technology that is one of them internet, indicating that most SMEs have used technology internet. Seen from subsector in use of technology internet, indicate that use of technology internet come from trade industrial sector.

Others the computer also become one of medium use of information technology at SMEs in Indonesian. Mostly SMEs survey to have computer as much 1 until 3 computer, and generally computer used by SMEs to conduct administration activity.

From the condition, earn said that by SMEs or which often conceived of a small business, representing a great deal of performer effort Indonesian.

A lot of company which technically succeed to apply use of information technology in company operation. The technological cause company can to change data with swiftly, precise, and accurate. But obliged to be paid attention that a lot of factors of resistor use of information technology by SMEs in trade industrial sector, that is; (a) not to fit with process business; (b) limitation of knowledge in the case of manajerial and use ICT; (c) expense of development and conservancy of electronic system; (d) problem of medium network of computer and communications; (e) problem of belief and security of use ICT; (f) the uncertainty punish, and also (g) various related challenge with adoption process electronic business.

With existence of theoretical model of UTAUT (*Unified Theory of Acceptance and Use of Technology*) proposed by Venkatesh et al, (2003); gender, age, experience, and voluntariness of use, representing moderating effect to use of information technology. While predictor variable is performance expectancy, effort expectancy, social influence, and facilitating conditions, really can assist to use of information technology to performance company.

Base on to research by Venkatesh et al, (2003) will be checked a behavior of acceptance and use of information technology at small & Medium enterprisess (SMEs) trade industrial sector, with the following problems; factors of any kind of which can influence use of information technology at SMEs trade industrial sector, and also what will be influence from use of information technology in improvement of performance SMEs trade industrial sector.

Target of this research is; (1) knowing how far the use of information technology, especially the computer in operation process company; (2) knowing direct influence of predictor variable, consist of; performance expectancy, effort expectancy, social influence, to performance company; (3) knowing influence of moderating effect; gender, age, experience, to relation between predictor with level use of information technology which adapted for need of SMEs trade industrial sector; (4) knowing affect use of information technology to improvement of performance SMEs trade industrial sector.

## 2. THEORETICAL BACKGROUND

At theories model of UTAUT proposed by Venkatesh et al, (2003); gender, age, experience, and voluntariness of use, represent moderating effect to use of an information system. Whereas predictor variable are performance expectancy, effort expectancy, social influence, and facilitating condition. Effort expectancy is level of easy which connected with use of a system (Venkatesh et al., 2003). The variable of formulation base on 3 construct at previous theories that is perceived easy of use (PEOU) from model TAM, complexity from model of PC utilization (MPCU), and easy of use from theories of diffusion innovate. Whereas performance expectancy is level of

individual confidence that using system will assist to reach performance (Venkatesh et al., 2003). Variable in the model UTAUT compiled from 5 construct at model or previous theories, that is perceived usefulness (TAM), extrinsic motivation (MM), job-fit (MPCU), relative advantage (IDT), and outcome expectations (SCT).

Gefen and Straub (2000) expressing that role of PEOU in fact more complex, where PEOU measure assessment of (*perceived easy of use*) and (*easy of learning*) from use of information technology. So, PEOU with reference to motivation of user of technology which founded by assessment of intrinsic aspect from use of technology, for example interface and process in use of technology. Whereas extrinsic aspect from information technology, in most cases representing reason why the adopted new technology.

Social influence is level perception of somebody that other of trust that as well as posible used new system (Venkatesh et al., 2003). Social influence represent determinant to behavioral target in using information technology, which to come from subjective norm in TRA, TAM, TPB, social factor in MPCU, and also image in theory of diffusion innovate.

Facilitating condition is level of individual confidence that organization and the technique available to support of use of system (Venkatesh et al., 2003). This variable in principle found 3 construct at model or previous theories, that is perception of behavioral controller at TPB, facilitating condition at MPCU, and compatible at theories of diffusion innovate. Facilitating conditions in use of computer can influence exploiting system (Thompson, 1991) in Venkatesh et al., (2003).

Whereas Anderson and Schwager (2004) explain four facilitating condition, that is; (1) resource availability, (2) adequate knowledge to use of technology, (3) as according to other system, (4) availability of people or a group of one who can assist at to meet difficulty of use system.

## 3. RESEARCH METHOD

The study research is survey, that is a research which aim to know influence from performance expectancy(X1), effort expectancy (X2), social influence (X3), to use

of information technology or behavioral intention (Y). Besides too know influence from behavioral intention (Y) and facilitating condition (X4) to performance of company (Z).

Whereas moderating effect, consisted of gender, age, and experience. And model research can visible at picture 3.1 in the following is:

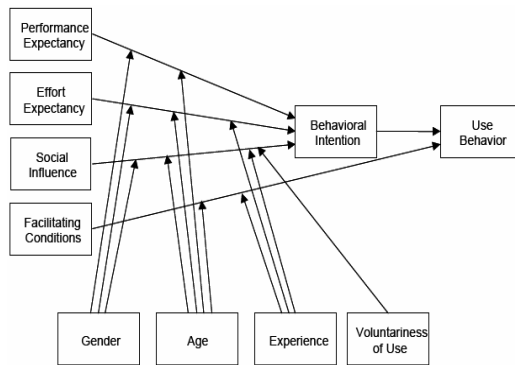


Figure 3.1 Model of research

Source of data used in research is primary data, that is data that goes on from object of research, that is questionnaires. Questionnaires have sent companies (employer or execution bussines).

Research conducted at April, 2008 up to May, 2008, with object of research is Small & Medium Enterprisess (SMEs) trade industrial sector in Jakarta, Bogor, Depok, Tangerang, and Bekasi (Jabodetabek). Sample taken at random, with method of simple random sampling, as much one hundred sample (questionnaires).

#### 4. RESULT AND DISCUSSION

Base on to result of data collecting indicate that from questionnaires have sent companies, only 70 questionnaires can be used. From 70 questionnaire or responder that participating most have gender of man, that is 41 people (58,57%) and the rest of woman as much 29 people (41,43%). Whereas last education majority to all all responder is SMU as much 40%. When seen from how many responder used of computer for importance of effort, then the result obtained is as much 58,57% (employer or execution bussines) expressing to use computer for importance of effort.

By using computer for importance of effort, performer of effort expressing that

using computer to make financial statement routinely is as much 71,43%. But which regrettably is limitation performer of effort in recognizing information technology, specially in use of computer, internet, and e-mail/website to support business activity. This matter because percentage height sum up performer of effort which not follow computer training and execution bussines that is as much 48 people (68,57%) and 52 people (74,29%).

Result of test reliability indicate that value of *Cronbach alpha* for all construct or variable research is equal to 0,981. with the result test validity to each question item by significance equal to 0,05 shall be as follows:

Table 4.1. Result test validity of research

Variable	Item	Corrected Item	Status
Performance Expectancy (X1)	A1	0,809	Valid
	A2	0,818	Valid
	A3	0,829	Valid
	A4	0,832	Valid
	A5	0,852	Valid
	A6	0,855	Valid
Effort Expectancy (X2)	B7	0,841	Valid
	B8	0,907	Valid
	B9	0,870	Valid
	B10	0,852	Valid
	B11	0,830	Valid
	B12	0,795	Valid
	C13	0,649	Valid
	C14	0,722	Valid
	C15	0,724	Valid
	C16	0,705	Valid
Facilitating Condition (X3)	E22	0,410	Valid
	E23	0,794	Valid
	E24	0,653	Valid
Behavioral Intention (Y)	F25	0,742	Valid
	F27	0,876	Valid
	G28	0,648	Valid
Social Influence (X4)	G28	0,773	Valid
	G29	0,773	Valid
	G30	0,782	Valid
	H31	0,804	Valid
	H31	0,727	Valid
	H32	0,758	Valid
	H33	0,764	Valid
	H34	0,741	Valid
Performance of Company (Z)	I35	0,345	Valid
	I36	0,445	Valid
	I37	0,806	Valid
	I38	0,823	Valid
	I39	0,767	Valid
	I40	0,801	Valid
	I41	0,810	Valid

Result test of rank-spearman correlation used to know be and not relation of between two variable to be tested. Variable independent X1, X2, and X3 will be tasted by relation to variable of behavioral intention (Y), and then variable of Y will be tested with variable performance of company (Z). Whereas facilitating condition representing variable of X4 will be measured by relation with variable performance of company (Z).

To know be and not relation of between two variable, then can seen through formulation of hypothesis in the following :

Ho: relation of between variable independent with variable dependent not significant

Ha: relation of between variable independent with variable dependent significant

And test hypothesis conduted by using the following criterion:

If probability < 0,05 then Ho refused, and Ha accepted

If probability > 0,05 then Ho accepted, and Ha refused

In the following is result of research:

**Table 4.2. result of probability and rank-spearman correlation**

Variable	Probability	Correlate	Explanation
X1 – Y	0,000	0,628	Ha accepted
X2 – Y	0,000	0,707	Ha accepted
X3 – Y	0,000	0,584	Ha accepted
X4 – Y	0,000	0,660	Ha accepted
Y – Z	0,000	0,679	Ha accepted

From result indicate that there are relation which are positive significant because from variable independent tested to be seen by variable of effort expectancy represent variable having value of biggest influence to behavioral intention, later followed by performance expectancy and social influence.

The mentioned show that effort expectancy have strong role to progress in use of information technology, what in the end influential to performance of company.

All this matter because of relating to opinion expressing that effort expectancy is level of easy which deal with use of a system so that effort expectancy also follow to influence intensity use of information technology (*behavioral intention*), specially in use of computer to assist to make financial statement and also the other operational become quickly and precisely.

Others performance expectancy is level of individual confidence that using system will assist to reach performance (Venkatesh et al., 2003). Whereas social influence is level of somebody perception expressing that other belief better use new system because social influence represent determinant to behavioral target in using information technology.

From third result of variable that is performance expectancy, effort expectancy and social influence, really facilitating condition in use of computer also can influence exploiting of system (Thompson, 1991) in Venkatesh et al. (2003).

While Anderson and Schwager (2004) explaining that there is four facilitating condition influencing intensity of use of information technology to performance of company that is; (1) resource availability, (2) adequate knowledge to use technology, (3) adaption with system which after used, (4) availability of people or a group of one who can assist at the (time) of facing difficulty use of system.

But some of result from research indicate that relation and also influence to use of computer is different each other, depended from motivation of use of computer and nature from work using of computer.

While to analyse partial correlation, relation of between variable independent and variable dependent influenced by variable of control (*moderating effect*), for that used by variable of gender, experience, and age becoming variable of control.

Then from result of research, can visible at tables 4.3 in the following is:

**Table 4.3 Result of Probability and Partial Correlation**

Variable (moderating effect)	Relation of between variable	Prob	Correlation	Explanation
Gender	X1 – Y	0,000	0,739	Ha accepted
	X2 – Y	0,000	0,705	Ha accepted
	X3 – Y	0,000	0,564	Ha accepted
Experience	X1 – Y	0,000	0,496	Ha accepted
	X2 – Y	0,000	0,432	Ha accepted
	X3 – Y	0,047	0,244	Ha accepted
	X4 – Y	0,001	0,410	Ha accepted
Age	X1 – Y	0,000	0,776	Ha accepted
	X2 – Y	0,000	0,754	Ha accepted
	X3 – Y	0,000	0,560	Ha accepted
	X4 – Y	0,000	0,690	Ha accepted

Base on result of research, to declare that variable of age and gender more influential by significant to relation of between variable of facilitating condition with performance company, compared to variable of experience. This matter can only, because owner of SMEs can determine direction and company policy, included in use of computer. Especially of different from direction and policy which determined by owner SMEs of different age and gender.

Result of research indicate that found relation of very firm of between perception of owner small industry with system of computer and use of actual from the computer.

Reimenschneider And Mykytyn (2000) proposing that figure of key of SMEs as end user from information technology tend to more pay attention to computer self-efficacy,

that is for aspect of training and ability use computer system.

Others from result of research, seen that factor/variable of age more influential by significant to relation of between facilitating condition with performance of company in using information technology at making of financial statement of SMEs. So also that happened to relation of between performance expectancy with behavioral intention or intensity of use of information technology influenced by factor of age and gender to performance of company.

Various different factor, have been identified in so many previous research influencing process adoption information technology by small company, inclusive of hitting factor of moderating effect.

## 5. CONCLUSION

Base on result of research which have been conducted, then can taken conclusion that: (1) computer use seen by have high enough among owner or execution of SMEs, specially for to make the financial statement, but likely require to be made balance to with various training and additional software of facilitating all owner or execution of SMEs in exploiting information technology and computer to create financial statement which quickly and precisely; (2) there are influence which are positive significant from variable predictor to level of use information technology. From variables predictor, variable having strong relation to level of use of information technology or behavioral intention is effort expectancy; (3) there are influence which significant from variable of moderating effect/control consisted by variable of gender, age, and experience influencing variable of predictor to level use of information technology (behavioral intention). highest variable moderating effect of influence (more dominant) will have influence of larger ones compared with variable of other moderating effect; (4) level of use of information technology influential positive of significant to performance of company. This matter because with found interest to use of IT with system, then will assisting to reach maximal performance, Venkatesh et al., (2003).

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